



INVESTIGATOR'S ANNUAL REPORT

United States Department of the Interior
National Park Service

All or some of the information you provide may become available to the public.

OMB # (1024-0236)
Exp. Date (11/30/2010)
Form No. (10-226)

Reporting Year: 2008	Park: Shenandoah NP	Select the type of permit this report addresses: Scientific Study	
Name of principal investigator or responsible official: Caroline Dufour		Office Phone: 304-535-6331 ext.102	
Mailing address: P.O. Box 807 Harpers Ferry, WV 25425 U.S.A.		Office FAX 304-535-2667 Office Email cdufour@appalachiantrail.org	
Additional investigators or key field assistants (first name, last name, office phone, office email) Name: Douglas Boucher Phone: (301) 696-3662 Email: dboucher@hood.edu			
Project Title (maximum 300 characters): Data gathering study on American Chestnut trees along the Appalachian National Scenic Trail within the framework of the A.T. MEGA-Transect.			
Park-assigned Study or Activity #: SHEN-00352	Park-assigned Permit #: SHEN-2008-SCI-0012	Permit Start Date: May 19, 2008	Permit Expiration Date: Oct 30, 2008
Scientific Study Starting Date: May 19, 2008		Estimated Scientific Study Ending Date: Oct 30, 2008	
For either a Scientific Study or a Science Education Activity, the status is: Completed		For a Scientific Study that is completed, please check each of the following that applies: <input checked="" type="checkbox"/> A final report has been provided to the park or will be provided to the park within the next two years <input type="checkbox"/> Copies of field notes, data files, photos, or other study records, as agreed, have been provided to the park <input type="checkbox"/> All collected and retained specimens have been cataloged into the NPS catalog system and NPS has processed loan agreements as needed	
Activity Type: Inventory			
Subject/Discipline: Plant Communities (Vegetation)			

Purpose of Scientific Study or Science Education Activity during the reporting year (maximum 4000 characters):

The purpose of the study is two-fold. First, to increase our understanding of the status of surviving remnants of the American chestnut, a species that played a key role in forests throughout Appalachia before being devastated by a blight fungus imported with Asian chestnut trees in the early Twentieth Century. Secondly, data on large individual trees with the potential to produce flowers will assist The American Chestnut Foundation in increasing the genetic diversity of its backcross breeding program, which is intended to restore the American chestnut tree to its former place in the region's forests by producing an otherwise American chestnut with the blight resistant characteristics of Asian chestnut. The 2008 study is a pilot which will be used to test and refine study design and methods.

Findings and status of Scientific Study or accomplishments of Science Education Activity during the reporting year (maximum 4000 characters):

The Appalachian Trail was divided into segments which formed the study units: 47 segments were defined within Shenandoah National Park. 15 volunteers were assigned 38 segments: only 18 segments were reported on. Throughout the entire study area, including trail segments outside of Shenandoah National Park, thirty-six volunteers submitted chestnut count reports. Collectively,

volunteers counted more than 10,000 chestnut trees while hiking more than 400 unique miles of the AT. It should be noted that several sections were hiked and counted by more than one hiker. The counts were submitted for pre-defined sections of the A.T: these pilot results are now being analysed to improve the study design as far as effectiveness of training, quality control and effectiveness of the study units, i.e. the A.T. segments. The investigators are verifying whether the segments are small enough units to show useful trends in the data as far as the distribution of the chestnuts and correlations with environmental variables.

For Scientific Studies (not Science Education Activities), were any specimens collected and removed from the park but not destroyed during analysis?

No

Funding specifically used in this park this reporting year that was provided by NPS (enter dollar amount):

\$0

Funding specifically used in this park this reporting year that was provided by all other sources (enter dollar amount):

\$500

List any other U.S. Government Agencies supporting this study or activity and the funding each provided this reporting year:

Paperwork Reduction Act Statement: A federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. Public reporting for this collection of information is estimated to average 1.625 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the forms. Direct comments regarding this burden estimate or any aspect of this form to Dr. John G. Dennis, Natural Resources (3127 MIB), National Park Service, 1849 C Street, N.W., Washington, DC 20240.